Spring 2020

CS 101-008: Computer Programming & Problem Solving

Wallace Rutkowski

CS 101
Introduction to Programming for Engineers

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Textbook: MATLAB Programming for Engineers
Author: Stephen J. Chapman
Publisher: Thomson
ISBN-13: 978-0-495-24449-3
ISBN-10: 0-495-24449-X

Grading: There will be a midterm and a final examination. There will be numerous programming projects and some online quizzes posted on **canvas**. Due to the coronavirus crisis, the grading scheme will be modified as follows.

Final grade will be computed as:

Programs	50%
Quizzes	20%
Final (on-line)	30%

Topics:

Part of the course will introduce students to the application of computing in engineering. The majority of the course will teach the basic concepts of imperative programming using the MATLAB programming language. The main topics will be:

1. Input/output
2. Translating equations into MATLAB
    - arithmetic operators
    - calling functions
    - plotting
3. Sequence of control flow
4. Selection statements
    - relational operators
    - logical operators
5. Iteration statements
6. Writing functions
    - parameter passing
    - local variables
7. Introduction to Python